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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,975	08/07/2001	Jeetendra Chaware	9749 (NCRC-0044-US)	5229
26890	7590	09/23/2005	EXAMINER	
JAMES M. STOVER NCR CORPORATION 1700 SOUTH PATTERSON BLVD, WHQ4 DAYTON, OH 45479			TO, BAOQUOC N	
			ART UNIT	PAPER NUMBER
			2162	

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/923,975

Applicant(s)

CHAWARE ET AL.

Examiner

Baoquoc N. To

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3-13, 15-27, 29-33, 35-44, 46 and 47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-13, 15-27, 29-33, 35-44, 46 and 47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 07/08/2005.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 3-7, 10, 12-13, 16, 22, 24, 27, 29-30, 33, 35, 38, 42-44 and 45-47 are amended and claims 1-2, 14, 28 are 34 canceled in the amendment filed on 07/08/2005. Claims 3-13, 15-27, 29-33, 35-44 and 46-47 are pending in this application.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 7, 38 and 42-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the applicant reference to "a method comprising" it is not clear whether this method is used for. The claim recited "presenting a user interface in a test system", it is not clear this interface is presented to e.g. user or what. It is not clear if receiving step receiving "a user selection or users selection" and what "to extract". When test system received a user selection pertaining to environment information to a target database, the step of "receiving, by the test system, the environment information extracted based on the user selection from the target database system" is not needed excepting for "wherein the test system is separate from the target database system" because "the extracted target database system is received by the test system response to the user selection".

Claim 7 recites similar limitations as to claim 1; therefore, it is rejected under the same reason as to claim 1.

In claim 38 recited "a first system", it is not clear what first system does and where the second system is.

In claim 42 recited "a first system", it is not clear what first system does and where the second system is.

Claim 43 recited "an article comprising at least one storage medium containing instructions that when executed cause a first system to", where is the second system and what the second system does.

Claim 44 recites similar limitations as to claim 43; therefore, it is rejected under the same reason as to claim 43.

### ***Response to Arguments***

3. Applicant's arguments filed 07/08/05 have been fully considered but they are not persuasive.

Applicant argues "creating this test framework does not constitute emulating a target database in the test system using received environment to extracted from a target database system."

The examiner respectfully disagrees with above argument. As discloses in Goldberg in fig. 3, the operation of a generator tool which generates the components of a query object and, optionally, the components of a database schema access object which allow the database schema to be displayed and test objects which test the query

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(col. 6, lines 43-48). This suggests the database of the target system to be displayed and test the query (emulation).

Claims 38 and 42-43 are similar to claim 3; therefore, they rejected under the same reason as to claim 1.

All dependents claims depended on independents claim is rejected under the same reason as their independents claims.

Claims 7 and 44 are rejected under the new ground rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-6, 10-13, 15-27, 30-33, 35-43 and 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldberg et al. (US. Patent 6,430,556 B1) in view of Grey et al. (US. Patent No. 6,507,842 B1).

Regarding on claims 1 and 38, Goldberg teaches a method comprising:

Presenting a user interface in a test system (client system is the test system to perform test) (col. 7, lines 25-30);

Receiving user selection through the user interface pertaining to environment information of a target database system to extract (the database schema may be presented to a users by means of the GUI 302 to aid the use in formulating a query which is consistence with the database schema) (col. 6, lines 54-57); and

Receiving (the database schema may be presented to a users by means of the GUI 302 to aid the use in formulating), by the test system (client 400), the environment information extracted based on the user selection from the target system (col. 6, lines 50-65 and col. 8, lines 40-51), wherein the test system (client system 400) (col. 7, lines 26-28) is separate from the target database system (server 402) (col. 7, lines 28-32).

Emulating the target database system in the test system using the received environment information (col. 6, lines 48-65).

Goldberg does not explicitly extracting the environment information of a target database. However, Goldberg teaches "in such a system, a client 400 communicate with the server 402 by means of an object request broker or ORB 412 an object, such as a query object or a test object be can be located on the server 402...the server 402 so that the server 402 can pass a request to the correct object implementation." (col. 7, lines 267-37). This suggests the concept of requesting the information from the server database system. On the other hand, Grey teaches "in step 306, the user provides configuration information, e.g., via a graphical user interface, specifying the desired operation of the Property loader step, such as which property and/or variable values to load from the database" (col. 15, lines 35-38). This suggests loading property and/or variables are the environment of the target database. Therefore, it would be obvious to one ordinary skill in the art at the time of the invention was made to modify Goldberg's system to include loading the property and/or variable values as taught in the Goldberg in order to obtain the attributes of the target database for running the test.

Regarding on claims 4 and 30, Goldberg teaches presenting the user interface comprises presenting plural screens each containing at least a graphical user interface element that is user selectable (col. 6, lines 36-40).

Regarding on claim 5, Goldberg teaches presenting screens comprises presenting a screens comprises presenting a screen containing graphical user interface elements selectable by a user to select, for extraction, one of environment information associated with an entire database in the target database system and environment information associated with tables referenced by a query (col. 6, lines 40-65 and col. 8, lines 43-51).

Regarding on claims 6 and 30, Goldberg teaches presenting the user interface comprises presenting user-selectable options corresponding to types of environment information to extract from the target database system (col. 6, lines 40-51).

Regarding on claim 7, Goldberg teaches presenting the user-selectable options comprises presenting options corresponding to statistic information and cost parameters (input parameter) (col. 3, lines 60-65).

Regarding on claim 10, Goldberg teaches displaying the environment information in the user interface (col. 6, lines 44-47).

Regarding on claim 11, Gold berg teaches presenting the user interface comprises providing a user-selectable element that when activated enables editing of the environment information (create, save, modify and test query object) (col. 6, lines 44-47 and col. 9, lines 37-40).

Regarding on claim 12, Goldberg teaches strong the received environment information in plural files (col. 10, lines 25-30).

Regarding on claim 13, Goldberg teaches presenting a user-selectable element that when activated causes the files to be combined (col. 6, lines 48-65).

Regarding on claim 15, Goldberg teaches the software is executable on the processor to export the environment information from the target database system (col. 8, lines 37-51).

Regarding on claim 16, Goldberg teaches the user interface comprises plural screens containing the user-selectable elements (col. 6, lines 36-40).

Regarding on claim 17, Goldberg teaches plural screens contains a first user-selectable element to indicate extraction of environment information associated with a database of the target database system (query the object in the database) (col. 6, lines 36-40).

Regarding on claim 18, Goldberg teaches another one of the plural screens contains a second user-selectable element to indicate extraction of environment information associated with one or more tables associated with a query in the target database system (the components of a database schema access object which allows the database schema to be displayed and test objects which test the query) (col. 6, lines 36-40).

Regarding on claim 19, Goldberg teaches the other one of the plural screens comprises a query selection element to select one or plural queries for which



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environment information is to be extracted (when the query information has been obtain from the user) (col. 6, lines 38-65).

Regarding on claim 20, Goldberg teaches the query selection element enables selection of the one or more plural queries from a file (from a database, a database is a file) (col. 6, lines 38-65).

Regarding on claim 21, Goldberg teaches the query selection element enables selection of the one or more plural queries from a query capture database (from a database) (col. 6, lines 38-65).

Regarding on claim 22, Goldberg the user-selectable element indicate one or more types of environment information to export (query objects) (col. 6, lines 1-6).

Regarding on claim 23, Goldberg the one or more types of environment information comprises one or more of the following: statistic information, cost information, information pertaining to definition of relation (col. 10, lines 16-24), and samples of data demographic of access modules in the target database system.

Regarding on claim 24, Goldberg teaches the user-selectable elements comprise an element to enable editing of the environment information (create, save, modify and test query object) (col. 6, lines 44-47 and col. 9, lines 37-40).

Regarding on claim 25, Goldberg teaches the user-selectable elements further comprises another element to undo editing of the environment information (col. 6, lines 44-47 and col. 9, lines 37-40).

Regarding on claim 26, Goldberg teaches the software is executable to display the environment information in the display (query object on the displayed) (col. 6, lines 38-65).

Regarding on claim 27, Goldberg teaches is executable to export the environment information from the target database system and subsequently to import the environment information to a test system (col. 7, lines 20-22).

Regarding on claim 32, Goldberg teaches presenting the screens comprises presenting a screen containing graphical user interface elements selectable by a user to select, for extraction, environment information associated with tables referenced by a query (col. 8, lines 40-50).

Regarding on claim 33, Goldberg teaches receiving the environment information comprises receiving at least one of the following information: number of nodes in the target database system, number of processor per node, statistic, and random samples pertaining to data demographics of data stored in the target database system (col. 6, lines 50-65 and col. 8, lines 40-51).

Regarding on claim 35, 39 and 46, Goldberg teaches generating an execution plan for a query based on an emulated database environment created by emulating the target system (col. 7, lines 23-39).

Regarding on claim 36, 40 and 47, Goldberg teaches visually display displaying steps of the execution plan in the user interface (col. 8, lines 34-40).

Regarding on claims 37, 41 Goldberg the emulated database environment comprises plural storage modules and plural access module processors to access, in

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parallel, respective storage module, wherein generating the execution plan comprises plan comprises generating the execution plan for execution by the plural access module processors (col. 6, lines 30-59).

Claim 42 is an article recited the same limitation as to claim 3, therefore, it is rejected under the same reason as to claim 3.

Claim 43 is an article recited the same limitation as to claim 3, therefore, it is rejected under the same reason as to claim 3.

5. Claims 7-9, 29 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldberg et al. (US. Patent 6,430,556 B1) in view of Grey et al. (US. Patent No. 6,507,842 B1) in view of MacLeod et al. (US. Patent No. 6,434,545 B1).

Both Goldberg and Grey discloses the subject matter in claim 7, however, they do not disclose wherein present the user interface comprises presenting user-selectable options corresponding to types of environment information to extract from the target database system; and wherein presenting the user-selectable options comprises presenting options corresponding to statistic information and cost parameters. On the other hand, McLeod discloses wherein present the user interface comprises presenting user-selectable options corresponding to types of environment information to extract from the target database system; and wherein presenting the user-selectable options comprises presenting options corresponding to statistic information and cost parameters (col. 2, lines 1-58). Therefore, it would have been obvious to one ordinary skill in the art

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at the time of the invention was made to modify Goldberg and Grey to include selecting query execution nodes with cost statistic as taught by McLeod in order to provide cost minimization to run the query.

Regarding on claim 8, Goldberg teaches presenting the user-selectable options comprises presenting a further option corresponding to data relating to definition of relations (col. 10, lines 16-24).

Regarding on claim 9, Goldberg teaches the user-selectable options comprises presenting a further option corresponding to samples associated with access modules (col. 12, lines 39-42).

Claim 44 is rejected under the same reason as to claim 7.

Regarding on claim 29, Goldberg teaches the instruction when executed cause the first system to import the environment to a test system (col. 6, lines 44-47).

#### ***Contact Information***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is at 571-272-4041 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached at 571-272-4107.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231.

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The fax numbers for the organization where this application or proceeding is assigned are as follow:

(703) 872-9306 [Official Communication]

BQ To

Sept 16,2005



JEAN M. CORRIELUS  
PRIMARY EXAMINER